| | 303 3/4 | | | | | | | | | | | |
|--|-----------------------|---|-----------------|--|-----------------------|---------------|--------------|---------------|--------------|---------------|------------------|---------------------|
| Work Ord Friday, May 10 | | | | *110 | 9635* | uar | | | | | | Page 1 |
| Item ID: Revision ID: Item Name: | D3501-1 Bushing | | • | Accept | *N900 | 040 | 10 | N * | Setup | Start Stop | | S1* S2* |
| Start Date: Required Date Reference: | 5/19/14 e: 5/19/14 | Start Qty: 200.00 Req'd Qty: 200.00 | |)()*)()* | Cust Item 1 Customer: | ID: | | | | | 14 | . 7/ |
| Approvals: | Process | Plan: MLゴ | Date: 14-05 | - 23 Tooling: | D : | ate: | _ i | | Run | Start | *N | R1* |
| | QC: | | . • | | | ate: | | | | Stop | *N | R2* |
| Sequence ID/ Work Center | ID | Operation Description | | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Rejec Qty | | Reject Number | Insp. Stamp |
| Draw Nbr | · | Revision Nbr | | | | | | | | | | |
| D3501 | F | Rev A | | | | | | | | | | 8 8 |
| *100 *100* Hardinge Hardinge CNC La | the Small | Hardinge CNC LATHE S Memo 1-TURN AS REV. | PER FOLIO FA650 | 0.00 0.00 & DWG D3501 ,FOLIO 2-DEBURR AS REQUIR | ED | , | | 206 | Ø | <u> </u> | | 14-06- JFE 20140 |
| ¹¹⁰ *11∩ * | | QC2- Inspect parts off m | achine FAI/FAIB | 0.00 | | , | | 206 | <i>\</i> | 2 | | 14-66 |
| QC Quality Control | | Memo | | 0.00 | | | | 200 | _ 4 | | | JR 2014-01 |

120

QC8- Inspect parts - second check

0.00

120

0.00

or/14/06/09 206 0

Quality Control

Memo

| DQA: | | | Date: | | | | | | | | | | ADAR. | 7 |
|---------------|-----------------------|------------|------------|-------|----------|-----------------------------|--------------|---------|----------------------------|----------|--------------|---------------|--------------------|---|
| | | | | | | WORK ORDER NON- | -CC | ONFO | RMANCE / UPDATE | | | | AEROSPAC | E |
| QA Closed: | | | Date: | | | | | | | W | ork Order up | odate only | | |
| Work Orde | er: | | | | | DISPOSITION | | | AGAINS | T DE | PARTMENT | /PROCESS | | |
| | - | | | , | _ | Rework | | | Skid-tube Crosstub | e | 1 | Water Jet [| Engineering | ł |
| Part N | lo. | | | | | Scrap | | | Machining Small Fa | — | Pro | d. Eng. Coor. | Quality | |
| | _ | | | | _ | Use-as-is | | | noforming Finishin | _ | - | re/Packaging | Other | |
| NCR N | اo | | | | | Suspected Unapproved | | | Large Fab Composit | e | | Supplier | | |
| Root | | | | | Desci | iption of work order update | | nitial | Action | | Sign & | | | • |
| Cause | } | Date | Step | Qty | | or non-conformance | Ch | ief Eng | Description | | Date | Verification | QC Inspector | |
| Design | | | | | | | | | | | | , | | |
| Doc/Data | | | | | | | | | | | | | | |
| Equip/Tooling | | | | | | | | | | | | | | |
| Handling/Pre | | | | | | | | | | | | | | |
| Material | | | | | | | | | | | | | | |
| Operator | | | | | | | | | | | | | · · | |
| Offset/Setup | | | | | | | Ì | | | | | | | |
| Process | | | | | | | | | | | | | | |
| Supplier | | | | | | | | | | | | | | |
| Training | | , | | | | | | | | | | | | |
| Transport | | | | | | | | | | | | | | |
| Unapproved | | | | | | | | | | | <u>]</u> | | | |
| | | | | | | | FA | ULT CA | TEGORY | | | | | |
| Landi | | | | | | General | | 1 . | | _ | · ¬ | Г | - | |
| | - | Bending | | | | Bend | | 1 | Program | <u> </u> | Outside Dim | | Pressure/Forced | |
| ľ | - | Centre No | ot Concer | ntric | <u> </u> | BOM/Route | _ | Grain | | | Over/Under | - | Set-up | - |
| | - | Cracks | | | | Broken/Damage/Defect | $oxed{oxed}$ | Hardwa | | - | Part Incorre | ⊢ | Temperature/Cure | |
| | $\boldsymbol{\vdash}$ | Crimp/Kin | ık/Ripple | /Wave | _ | Burrs | | 1 ' | ion Incomplete/Unqualified | \vdash | Part Lost/Mi | issing | Weld | |
| | _ | Cuffs | | | | Contamination | <u> </u> | 4 | tions Incomplete/Unclear | \vdash | Part Moved | L | Wrong Stock Pulled | 1 |
| | - | Crushing | | | | Countersink | <u> </u> | • | gned/off center | <u> </u> | Positioned V | | ¬ | |
| | - | Heat Trea | | | <u> </u> | Cut Too Short | <u> </u> | Mislabe | | L | Power Loss/ | Surge | Other | |
| ! | $\boldsymbol{\vdash}$ | Inspection | - | Tube | <u> </u> | Drawing | | Misrea | | | | | | |
| | | Marks/Ch | | | <u> </u> | Drill Holes | $oxed{oxed}$ | Off-set | | | | | | |
| | | Turning So | | | <u> </u> | Finish | <u> </u> | 4 | Calibration | | | | | |
| | | Wave/Tw | ist in Tub | oe - | | Fit/Function | 1 | Out of: | Sequence | | | | | |

| Work Orde Friday, May 16, | | | | *110 | 7635* | | | | | | | Page | 2 |
|---|--------------------|---|--|----------------------|--------------------------|------------|--------------|---------------|------------|---------------|------------------|----------------|-----|
| Revision ID: Item Name: | D3501-1 Bushing | | | Accept | *N900 | 040 | 100 | ገ* | Setup | Start Stop | 171 | S1* S2* | |
| Start Date: Required Date: Reference: | 5/19/14 5/19/14 | Start Qty: 200.00 Req'd Qty: 200.00 | *200* *200* | | Cust Item 1 Customer: | D: | | | | | | | ţ |
| Approvals: | Process | s Plan: | Date: | Tooling: | Da | ate: | _ | | Run | Start | *N | R1* | |
| | QC:_ | | Date: | SPC (Y/N): | Da | ate: | | | | Stop | *N | R2* | |
| Sequence ID/ Work Center II |) | Operation Description Identify as per dwg & Stoo | k Location TOUL | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Rej Qty | | Reject Number | Insp. Stamp | |
| *120* Packaging Packaging | | Мето | 25cao <u>5 (</u> | 0.00 | | | (| 206 | 2 — | | /4 <u>-</u> € | 6-K | ; ز |
| 1,40 | | QC21- Final Inspection - V | Vork Order Release | 0.00 | | | | | | | | | |
| *140* QC | | Memo | | 0.00 | | | | ML | 5 | 14-0 | 06-It | | - |

0.00

Memo

Quality Control

MLJ 14-06-10 MF 14-6-10

| DQA: | | | Date: | | | | | | | | | | DART |
|---------------|------------------|------------|------------|--------|--------|------------------------------|--------|----------------|---|----|---------------------------------------|--------------------------------------|---------------------------|
| QA Closed: | | | Date: | | | WORK ORDER NON- | -CC | ONFO | | Wo | ork Order up | odate only | AEROSPĀCĒ |
| | | | | | | DISPOSITION | | | | | PARTMENT | | |
| Work Orde | er: _ | | | | | | | | _ ` . | | · · · · · · · · · · · · · · · · · · · | <u></u> | , |
| Part N | lo | | | | | Rework Scrap Use-as-is | | | Skid-tube Crosstube Machining Small Fab noforming Finishing | | | Water Jet d. Eng. Coor. re/Packaging | Engineering Quality Other |
| NCR N | ۰. ا | | | | | Suspected Unapproved | | | Large Fab Composite | | | Supplier | |
| Root | | | | | Desci | ription of work order update | ı | nitial | Action | | Sign & | | |
| Cause | | Date | Step | Qty | | or non-conformance | Ch | ief Eng | Description | | Date | Verification | QC Inspector |
| Design | | | | | | | | _ _ | | | | | |
| Doc/Data | | | | | | | | | | | | | |
| Equip/Tooling | | | | | | | | | | | | | |
| Handling/Pre | Ш | | | | | | | | · | | | | |
| Material | _ | | | | | | | | | • | | | |
| Operator | | | | | | : | | | | | | | |
| Offset/Setup | | | | | | : | | | | | | | |
| Process | | | | | | | | | | | | | |
| Supplier | | | | | | | | | | | | | |
| Training | | | *- | | | | | | | | | • | |
| Transport | | | | | | | Ì | | | | | | |
| Unapproved | | | | | | | | | | | <u></u> | | |
| | | | | | | | FAI | ULT CA | TEGORY | | | | |
| Landi | ng G | iear | | | | General | | | | | | | - |
| | | Bending | | | | Bend | | Folio/F | Program | | Outside Dim | ensions | Pressure/Forced |
| ; | | Centre No | ot Concei | ntric | | BOM/Route | | Grain | | | Over/Under | tolerance | Set-up |
| | | Cracks | | | | Broken/Damage/Defect | | Hardwa | are | | Part Incorre | | Temperature/Cure |
| | | Crimp/Kir | ık/Ripple | e/Wave | | Burrs | | Inspect | ion Incomplete/Unqualified | | Part Lost/Mi | ssing | Weld |
| | | Cuffs | | | | Contamination | | instruc | tions Incomplete/Unclear | _ | Part Moved | | Wrong Stock Pulled |
| | | Crushing | | | | Countersink | | Misali | gned/off center | _ | Positioned V | | _ |
| | | Heat Trea | t | | | Cut Too Short | | Mislabe | eled | | Power Loss/ | Surge | Other |
| | | Inspection | n Strip in | Tube | | Drawing | | Misrea | d | | | | |
| | | Marks/Ch | atter | | | Drill Holes | L | Off-set | | | | | |
| | Turning Sequence | | | | Finish | | Out of | Calibration | | | | | |
| | | Wave/Tw | ist in Tul | be | | Fit/Function | | Out of | Sequence | | | | |

Picklist Print

Friday, May 16, 2014 1:52:30 PM

Work Order ID: 119635

119635

Parent Item:

D3501-1

D3501-1

Parent Item Name: Bushing

Start Date: 5/19/14

Required Date: 5/19/14

Page 1

Start Qty: 200.00

Required Qty: 200.00

Comments:

IPP Rev:A New Issue 06-05-09 JLM

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Primary Item Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|------------------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| M303R0.750 | | Purchased | No | | 100 | f | 98.9610 | 0.0791 | 16.6526 | 4 | | |
| *M303R0 | 750* | | | | | | | ** | IU_ | | 8 3 B | |

303 Round Bar 0.750

Location Loc Qty Loc Code MAT028 98.961 m127464 48.948 m128882 50.013

~ m129366

| DQA: | | _ Date: | | | | | · | | | | | | TRAC" |
|---------------|---------------|---------------|-----------|--------------|-----------------------------------|----------|-----------|------------------------|-------------------|---------------|-------------------------|---------------|--------------------|
| QA Closed: | | Date: | | | WORK ORDER NON | -CC | ONFO | RMANCE / UPDA | | ork Order up | date only | \neg | AEROSPACE |
| Marila Ordan | | | | | DISPOSITION | | | | AGAINST DE | PARTMENT/ | PROCESS | | |
| Work Order | : | | | | Payment. | 1 | | Skid-tube C | rosstube | | Water Jet | \neg | Engineering |
| Part No |) | | | | Rework Scrap | | | ⊢ | Small Fab | | d. Eng. Coor. | | Quality |
| NCR No | o | | | | Use-as-is Suspected Unapproved | | Thern | * — | Finishingomposite | Rec/Stor | e/Packaging Supplier | | Other |
| Root | | | | Desc | ription of work order update | l | nitial | Action | | Sign & | | | |
| Cause | Date | Step | Qty | | or non-conformance | Ch | ief Eng | Description | on | Date | Verification | | QC Inspector |
| Design | 18. | | | | | | | | | | | | |
| Doc/Data | | | | | | | | | | | | | 4 |
| Equip/Tooling | | | | | | : | | | | | | 1 | |
| Handling/Pre | | | | | | | | | | | | | |
| Material | | | | | | | | | | | | | |
| Operator | 4 | | | | | | | | | | | 1 | |
| Offset/Setup | | | | | | | | | | | | | • |
| Process | _ | | | | | İ | | | | | | ļ | |
| Supplier | 4 | | | | | | | <u> </u> | | | | | |
| Training | | | | | | | | | | | | | |
| Transport | 4 | | | | | | | | | | ı | | |
| Unapproved | | | | | | | U.T.CA | FECORY | | <u></u> | | L | |
| ļ | | - | | | · | FAI | ULI CA | TEGORY | · | | | | |
| Landing | - | _ | | _ | General | | احمانه اد | Program | | Outside Dim | onsions . F | \neg | Pressure/Forced |
| \ <u> </u> | Bendin | | | - | Bend BOM/Route | \vdash | Grain | Togram | <u> </u> | Over/Under | - | $\overline{}$ | Set-up |
| | Cracks | Not Conce | nuic | - | Broken/Damage/Defect | - | Hardwa | are | - | Part Incorrec | F- | _ | Temperature/Cure |
| - | 4 | Kink/Ripple | \/\\/a\/a | - | Burrs | - | | ion Incomplete/Unqua | lified | Part Lost/Mi | - | | Weld |
| <u> </u> | Cuffs | vilik) vibbie | y wave | - | Contamination | - | 1 ' | tions Incomplete/Uncle | _ | Part Moved | - T | _ | Wrong Stock Pulled |
| - | Crushir | ıa | | | Countersink | \vdash | 4 | gned/off center | | Positioned V | L Vrong | | |
| - | Heat Tr | _ | | | Cut Too Short | \vdash | Mislabe | = | <u> </u> | Power Loss/ | _ | \Box | Other |
| - | | ion Strip in | Tube | - | Drawing | | Misrea | | <u> </u> |] | U | | |
| } <u> </u> | Marks/ | | | | Drill Holes | \vdash | Off-set | | | | | _ | |
| | | Sequence | | | Finish | | 4 | Calibration | | | | | |
| | | rwist in Tul | | | Fit/Function | | 4 | Sequence | | | | | |

| DART AEROSPACE LTD | Work Order: | 119635 |
|------------------------------|--------------|-------------|
| Description: Bushing | Part Number: | D3501-1 |
| Inspection Dwg: D3501 Rev: A | | Page 1 of 1 |

FIRST ARTICLE INSPECTION CHECKLIST

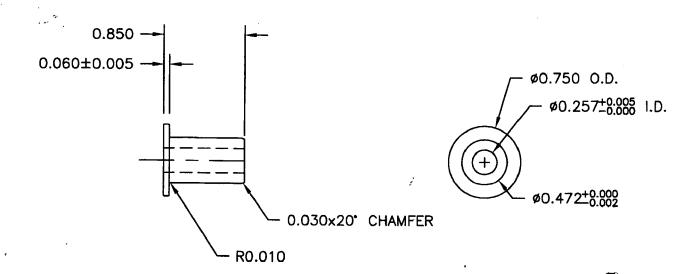
| | X | First Article | | Prototyp | е | |
|----------------------|---------------|---------------------|-----------|----------|-------------------------|----------|
| Drawing Dimension | Tolerance | Actual Dimension | Accept | Reject | Method of Inspection | Comments |
| 0.850 | +/-0.010 | 0.8508 | V | | m1c0-1 | JF602 |
| 0.060 | +/-0.005 | 00003 | √ | | · Li | И |
| Ø0.750 | +0.008/-0.004 | 6.7473 | J | | 10 | Л |
| Ø0.257 | +0.005/-0.00 | 0.757 | √ | | Caliper | JEE-01 |
| Ø0.472 | +0.000/-0.002 | 0.4710 | $\sqrt{}$ | | micol | 74-02 |
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| Measured by: JfL | Audited by: | and | Prototype Approval: | N/A |
|------------------|-------------|----------|---------------------|-----|
| Date: 2014-01-04 | Date: | 14/06/09 | Date: | N/A |

| Rev | Date | Change | Revised by Approv | ed . |
|-----|----------|-----------|-------------------|------|
| Α | 06.10.27 | New Issue | KJ/JLM CALL | |



| | DESIGN | DRAWN BY | DART AEROS HAWKESBURY, ONT. | |
|---|-----------|-------------|--------------------------------|---------------------------------------|
| ſ | CHECKED # | APPROVED IN | DRAWING NO. | REV. A |
| l | | 911 | D3501 | SHEET 1 OF 1 |
| 1 | DATE | | TITLE | SCALE |
| | 06.04.18 | | BUSHING | 1:1 |
| | Α | 06.04.18 | NEW ISSUE | · · · · · · · · · · · · · · · · · · · |



D3501-1 BUSHING

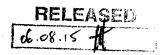
1) MATERIAL: AISI 303 SS (REF DART SPEC. M303R)

2) FINISH: NONE

3) BREAK ALL UNMACHINED SHARP CORNERS 0.010 MAX

4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

5) ALL DIMENSIONS ARE IN INCHES



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